

<b>REQUEST FOR COUNCIL ACTION</b> CITY OF SAN DIEGO				CERTIFICATE NUMBER (FOR COMPTROLLER'S USE ONLY)	
TO: CITY COUNCIL		FROM (ORIGINATING DEPARTMENT): Public Utilities		DATE: 9/26/2014	
SUBJECT: Briefing on Water and Wastewater Power Outage Improvement and Disaster & Crisis Response					
PRIMARY CONTACT (NAME, PHONE): Sue LaNier, 858-292-6466 MS901A			SECONDARY CONTACT (NAME, PHONE): Dan Stone, 858-292-6309 MS901A		
COMPLETE FOR ACCOUNTING PURPOSES					
FUND					
FUNCTIONAL AREA					
COST CENTER					
GENERAL LEDGER ACCT					
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00
FUND					
FUNCTIONAL AREA					
COST CENTER					
GENERAL LEDGER ACCT					
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00
COST SUMMARY (IF APPLICABLE):					
ROUTING AND APPROVALS					
CONTRIBUTORS/REVIEWERS:		APPROVING AUTHORITY	APPROVAL SIGNATURE	DATE SIGNED	
Liaison Office		ORIG DEPT.	Mulvey, Robert	09/29/2014	
		CFO			
		DEPUTY CHIEF	Heinrichs, Tony	09/29/2014	
		COO			
		CITY ATTORNEY	Palmucci, Ray	09/30/2014	
		COUNCIL PRESIDENTS OFFICE			
PREPARATION OF:	<input type="checkbox"/> RESOLUTIONS	<input type="checkbox"/> ORDINANCE(S)	<input type="checkbox"/> AGREEMENT(S)	<input type="checkbox"/> DEED(S)	
This is an informational item only.					
STAFF RECOMMENDATIONS: This is an informational item only. No action required by the Committee or Council.					
SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)					
COUNCIL DISTRICT(S):	All				
COMMUNITY AREA(S):	All				
ENVIRONMENTAL IMPACT:	This activity is not a "project" and is therefore not subject to CEQA per CEQA Guidelines Section 15060(c)(2).				

CITY CLERK INSTRUCTIONS:	
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**COUNCIL ACTION  
EXECUTIVE SUMMARY SHEET  
CITY OF SAN DIEGO**

DATE: 9/26/2014

ORIGINATING DEPARTMENT: Public Utilities

SUBJECT: Briefing on Water and Wastewater Power Outage Improvement and Disaster & Crisis Response

COUNCIL DISTRICT(S): All

CONTACT/PHONE NUMBER: Sue LaNier/858-292-6466 MS901A

**DESCRIPTIVE SUMMARY OF ITEM:**

Update to the Environment Committee on Public Utilities Power Outage Improvement and Disaster & Crisis Response.

**STAFF RECOMMENDATION:**

This is an informational item only. No action required by the Committee or Council.

**EXECUTIVE SUMMARY OF ITEM BACKGROUND:**

On September 8, 2011, at approximately 3:38 p.m., the largest power failure recorded in California history occurred. The power outage in the City of San Diego was a widespread blackout, also affecting large areas of Southern California, western Arizona, northern Baja California and Sonora, Mexico.

As a result, immediate impacts underlined the need for improvements to strengthen the City's ability to withstand future impacts from other disasters or hazards, and improve continuity of government services and recovery efforts.

Public Utilities experienced several challenges during the blackout, some having a direct impact on the community. Most notably:

- The outage caused some sewage pumping stations to fail, resulting in contaminated beaches and subsequent beach closures by request from San Diego County Environmental Health Department.
- Unrelated to the sewage pumping failures, but out of an abundance of caution due to problems caused by the loss of power and water pressure in the City's potable water system, some neighborhoods were advised to boil water or use bottled water. Further testing found no evidence of contaminated potable water in the City. However, the Alert San Diego (ASD) public emergency notification system was used effectively by City agencies for Boil Water notifications.

A Power Outage Improvement Plan was developed in response to a request from the Chief Operating Officer on September 23, 2011. Public Utilities made 55 observations for improvement and corresponding corrective actions covering both material (equipment and technology) based solutions, as well as a number of procedural changes to better address operations during disaster and crisis response.

In addition, Public Utilities has continued the practice of updating and refining emergency response plans, as well as conducting vulnerabilities studies to increase resiliency in operations, and provide continued water and wastewater services to the citizens of the San Diego area in the event of a disaster.

FISCAL CONSIDERATIONS: None with this action.

EQUAL OPPORTUNITY CONTRACTING INFORMATION: None with this action.

PREVIOUS COUNCIL and/or COMMITTEE ACTION: None with this action.

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS: None with this action.

KEY STAKEHOLDERS AND PROJECTED IMPACTS: None with this action.

Mulvey, Robert  
Originating Department

Heinrichs, Tony  
Deputy Chief/Chief Operating Officer



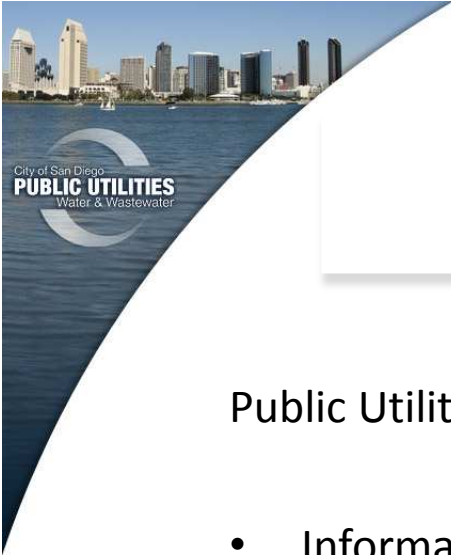
# **Public Utilities Department Report to Committee on the Environment**

## **Update on Power Outage Improvement and Disaster & Crisis Response**

**Robert Mulvey, Assistant Director**

October 2014





# Request from Environment Committee

Public Utilities requested by Committee to provide:

- Information on safety measures incorporated at plant and pumping facilities, summarizing improvements made over the last few years
- Discuss recommendations going forward that could help prevent any kind of failures in the future.



# Community Impact in the Public Utilities Sector

In 2011, during the regional blackout, Public Utilities experienced several events that impacted the community.

- The outage caused several pumping stations to fail.
- Alert San Diego (ASD) public emergency notification system used to issue precautionary Boil Water notifications. Subsequent water sampling made no discovery of positive results of contamination.



# Effect of Power Outage Within the Public Utilities Systems

- Wastewater System consists of 82 pumping stations citywide.
  - 100% of customers had wastewater service available.
  - 55 pumping stations operational during the blackout.
  - 27 pump stations not operational – no power redundancy.
- Water System consists of 49 pumping stations citywide.
  - 97% of customers had water available, though pressure diminished.
  - 15 pumping stations had backup generator power
- 4 water reclamation and wastewater treatment plants, 3 water treatment plants, and Water Quality Laboratory on backup generators. With the exception of South Bay WRP and Otay WTP, all were fully operational on September 8.





# Effect of Power Outage Within the Public Utilities Systems (cont'd)

## **Notable Success**

- Though both water and water and wastewater systems were affected by the outage, three water treatment plants operated with no major incidents, delivering 121 million gallons of potable water on September 8.
- Public Utilities successfully delivered uninterrupted potable water service to over 90 percent of its customers. The wastewater system collected, treated, and disposed of over 160 million gallons of sewage or 97 percent of the sewage discharged to the system.



# Prioritization of Improvements

- Public Utilities made 55 observations for improving sustainability during emergency operations or disaster.
  - 10 identified Critical Essential Services (Preservation of Life/Property)
  - 15 identified as Essential Services (Sustained Support of Services)
- All improvement items are resolved or mitigated by improved business procedures to increase sustainability.



# Back-Up Generator Summary

- Council Approved \$17.5 M for Back Up Generators and connections
- All water and wastewater sites requiring back up generators now have them on site.
- A robust generator maintenance plan has been established and continues to be a routine part of Public Utilities preventative maintenance plan.
- All Units load tested and operable



# 2014 Emergency Response Plans and Vulnerability Studies

- Public Utilities conducted review and update of all Emergency Response Plans (ERP) for both water and wastewater systems.
  - Updated ERP's have been adopted at all facilities, and Department Operations Centers (DOC)
- Vulnerability Assessment (mandated by Public Law 107-188) conducted.
  - Plan of action for addressing items noted within the study.
  - Majority of items/best practices previously identified and in work with two CIP's for critical infrastructure protection.